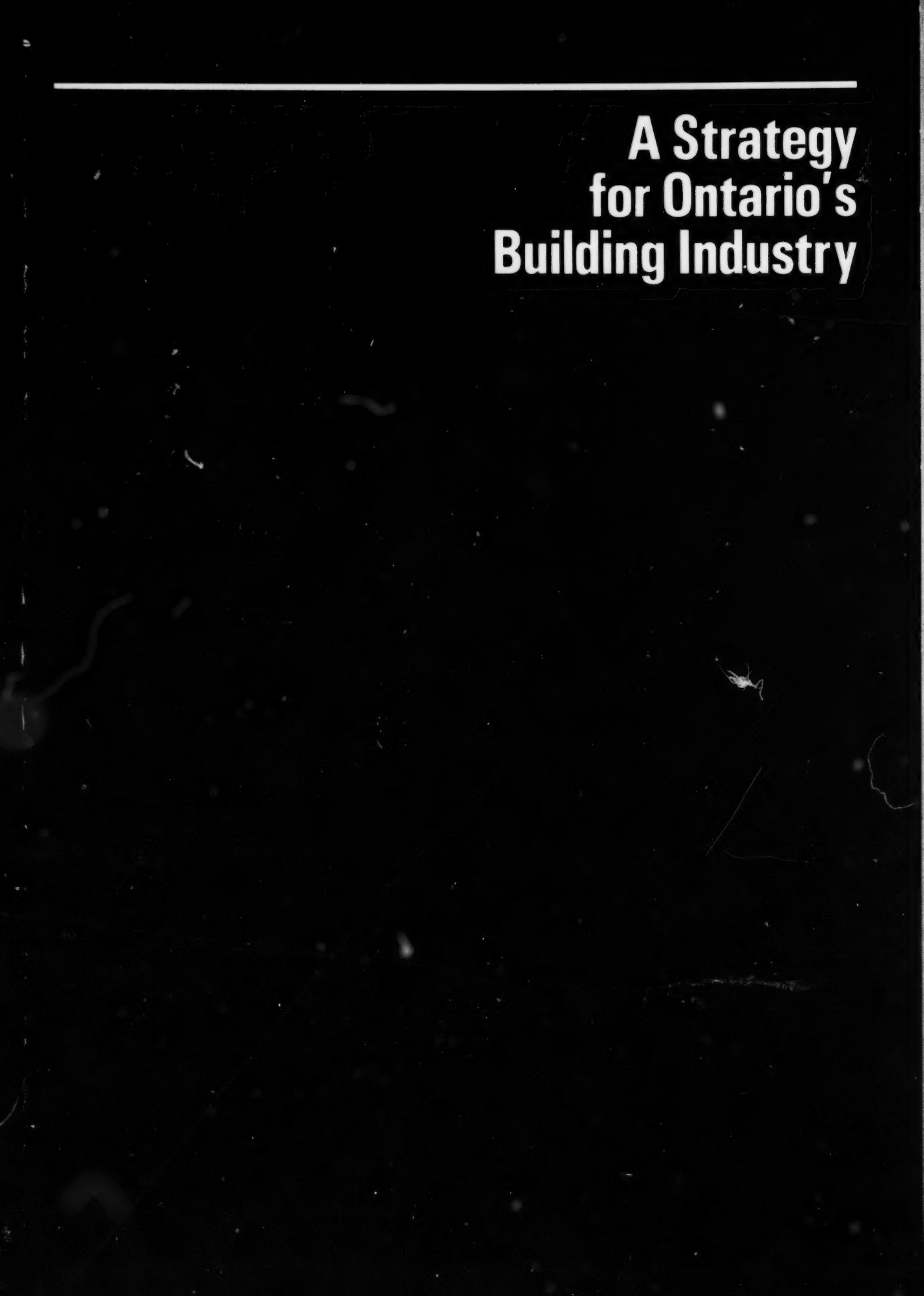
A Strategy for Ontario's Building Industry



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A STRATEGY FOR ONTARIO'S BUILDING INDUSTRY

DEFINITION OF THE BUILDING INDUSTRY

The building industry includes everyone who contributes to the building process from project conception to building management, maintenance and renovation.

It encompasses the providers of products, services and labour in the construction of residential, commercial, industrial and institutional buildings. The industry also includes a supporting network of distributors, financial institutions, educators, industry associations, exporters, importers, regulatory agencies, buyers of construction and government.

THE BUILDING INDUSTRY STRATEGY

EXECUTIVE SUMMARY

The Building Industry Strategy is a comprehensive plan to strengthen all facets of one of Ontario's most vital economic forces, the building industry.

Developed after extensive consultation with industry, labour and government representatives (see Appendix A), the plan specifies how it will increase employment opportunities, expand production for markets both at home and abroad and foster career development within the industry.

The plan will be implemented through the Building Industry Strategy Board, composed of representatives from labour, industry and government. Staff services will be provided by the Building Industry Secretariat at the Ministry of Housing.

The following report contains a profile of the building industry in Ontario, the rationale for development of a plan to revitalize the industry, objectives of the plan, a synopsis of the programs designed to achieve these objectives and benefits of the plan. The report is based on a business plan that was prepared with the assistance of Peter Barnard Associates, now CMP/Barnard.

The Building Industry Strategy has been approved by Cabinet and $14.6 million has been allocated over three years to achieve the objectives.

1. ONTARIO'S BUILDING INDUSTRY: A PROFILE

KEY ECONOMIC COMPONENT

Building construction is one of Ontario's largest and most important industries. In 1985, $12.9 billion was spent in the industry, making it crucial to the province's economic health.

It is Ontario's largest employer, with a labour force twice the size of the agricultural sector and three times that of the automotive industry.

The industry is as diverse and complex as it is large, with nearly 400,000 people employed in more than 80,000 firms, most of small to medium size. These firms are dispersed throughout the province. For example, 20% of all workers in both northern and central Ontario are employed in building related industries.

The industry's importance is further enhanced by its effect on other sectors of the economy. The $12.9 billion spent on building construction last year created an estimated 125,000 jobs in spin-off employment.

Finally, the building industry has a major impact on government revenues, with some 17 cents out of every building dollar accruing to the provincial and federal governments.

In 1984, the building industry contributed, directly and indirectly, about $1 billion to provincial revenues alone. In many municipalities, building activity is considered the principal measure of the economic health of the community. Moreover, building construction has twice the economic impact of the automobile industry on provincial and local economies.

The building industry is clearly a powerful economic force in Ontario.

STRENGTHS OF THE INDUSTRY

In addition to being a powerful economic force, the building industry has many unique strengths upon which to build. These include:

- major real estate developers, architects and engineers have earned Ontario a world-wide reputation for excellence

- a strong financial infrastructure - especially the banking community

- all sectors of the industry represented in Ontario e.g. wood sector in the north, manufacturing sector in southwest and central Ontario

- considerable government resources, provincial and federal, to support education, export and public sector capital projects

- good export potential through proximity to the U.S. and experience in dealing with government export network

- some advanced building-related technologies e.g. project delivery systems, flying forms

INDUSTRY CHALLENGES

Notwithstanding its major contribution to the provincial economy and its considerable strengths, the industry does face difficult challenges.

Despite the recent upswing in building construction, there has been a significant drop in building activity since the 1970's, with declines of more than 27% registered over the past 10 years as a share of the Gross Provincial Product. Further declines are predicted for new residential, commercial and industrial construction after 1990.

Two key factors contributed to the slowdown:

- changes in population growth and composition caused by a sharp decline in immigration and birth rates

- slower overall economic growth due to factors such as a significant increase in energy costs and a sharp rise in interest rates culminating in the 1981-82 recession.

Today, the industry still has the highest unemployment rate at 20% of all economic sectors. It also faces increased international competition for its building-related goods and services, both through penetration of domestic markets by imported products and loss of export markets to other countries.

In addition to socio-economic factors that affect the building process, there are additional underlying constraints, namely:

- fragmentation
- heavy regulation
- low productivity
- lack of strategic direction

These characteristics can curtail industry performance in a number of ways.

Industry fragmentation causes missed opportunities.

The building industry is characterized by a high degree of fragmentation, both in terms of size and specialties. In general, firms are small to medium-sized and concentrate on one or two aspects of the building process. These factors:

- impede the development and take-up of new technologies
- discourage new market development as there is limited investment capital
- reduce the ability to realize economies of scale due to short production runs
- reduce the ability to compete internationally where demand is increasing for packaged services and products
- impede integration and co-operation between industry sectors
- weaken industry's ability to communicate, as a cohesive group, with government.

A plethora of regulations impedes the building process.

Regulatory reform emerged as a top priority among building industry representatives surveyed before developing the plan. There are about 280 Provincial Acts and 400 Regulations directly affecting building activity. This vast amount of legislation can result in:

- duplication
- overlaps
- conflicts
- increased building costs
- uncertain investment climate

Low productivity hinders the industry's domestic performance and its ability to compete internationally.

Productivity in the construction industry remained static through much of the 1970's and has been significantly lower than that in other sectors such as agriculture and manufacturing.

The reasons for low productivity are many and varied. They include: lack of management skills in some areas; the absence of a construction buyers' association to stimulate productivity; very low investment in research and development; slow take-up of new technology; and the cyclical nature of building construction.

Optimum productivity will become increasingly essential as domestic demand for construction declines and export markets or import-replacement markets assume greater importance.

The absence of strategic direction for the industry inhibits long-range, cohesive planning.

Without an industry-wide focus, building construction suffers in numerous ways, namely:

- reduced effectiveness of public resources due to lack of focal point at federal and provincial governments
- ineffective targetting and/or communication of support services, education/training programs, financial assistance and other resources available to the industry
- poor access to information on markets, trends, technology, research, development, etc.

PLAN ADDRESSES CHALLENGES

Although the challenges facing the building industry are serious, they are not insurmountable.

Industry, labour and government have recognized the need for remedial action and have developed a plan that deals with the participants' key priorities:

- to create more work for the industry
- to address concerns raised by the industry, including heavy regulation, ineffective delivery of training programs for the industry; low rate of technology transfer
- to secure the industry's future over the longer term by improving its productivity
- to attack the underlying problems that constrain industry performance

A description of the plan that has been developed follows in the next chapter.

2. OBJECTIVES AND PROGRAMS

MISSION STATEMENT

The Building Industry Strategy Board has adopted the following mission statement that reflects the plan's priorities:

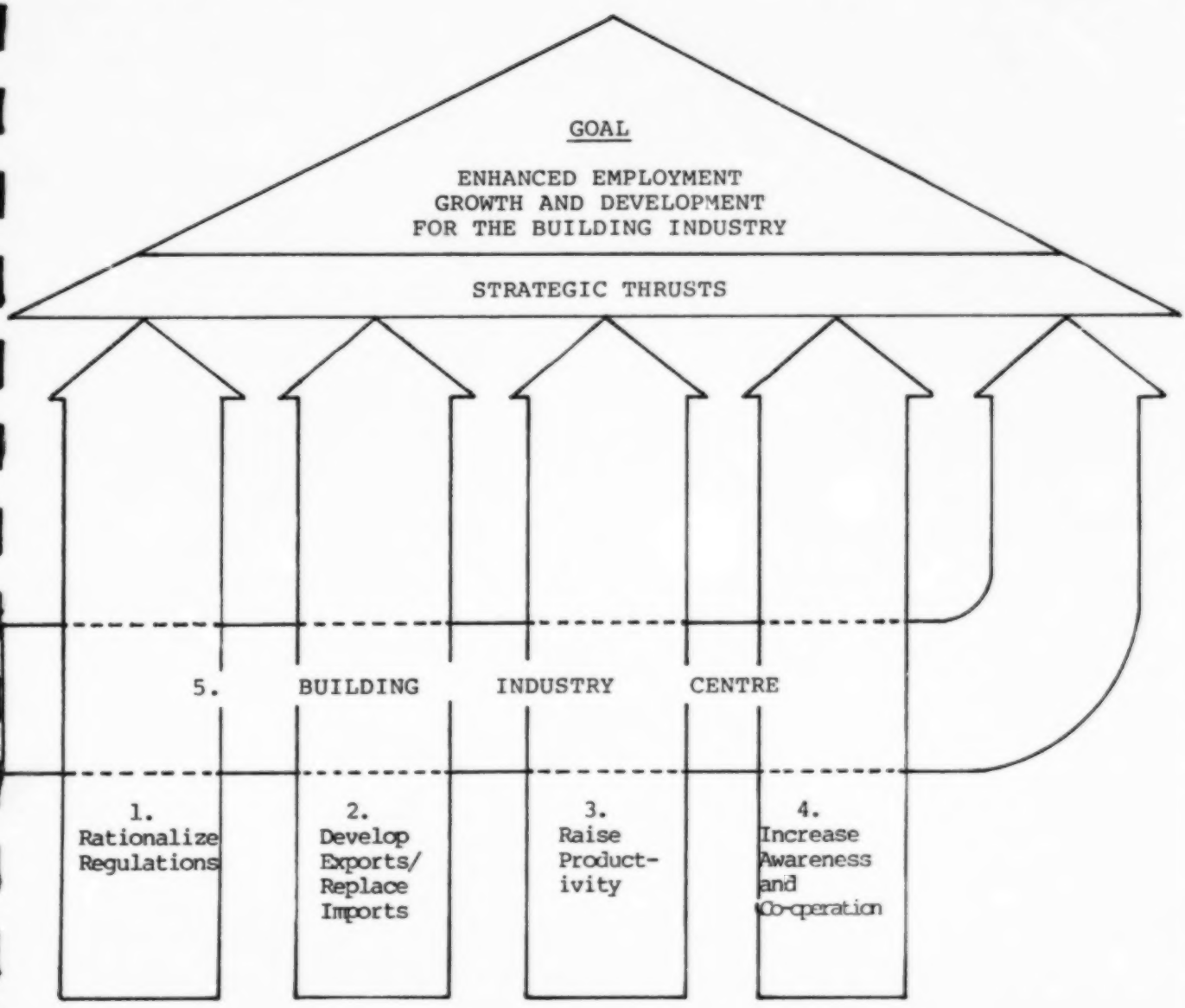
> "To lead the Ontario building industry toward enhanced employment, growth and development by:
>
> - establishing the industry in new markets both at home and abroad;
>
> - facilitating performance improvements."

FIVE GOALS

The Building Industry Strategy has five goals:

- to rationalize regulations affecting the industry and improve their administration
- to promote export development and import replacement
- to raise productivity within the building industry
- to increase industry awareness and co-operation
- to establish a world-class building centre.

BUILDING INDUSTRY PLAN BUILT ON FIVE THRUSTS



Fourteen programs have been developed to achieve these goals. A brief description of each program follows under the goal it will help achieve.

GOAL: TO RATIONALIZE REGULATIONS AFFECTING THE BUILDING INDUSTRY AND IMPROVE THEIR ADMINISTRATION

PROGRAMS

1. Major funding has been provided to the Buildings Branch of the Ministry of Housing to accelerate their work in reducing the number of building regulations and expanding training programs for those people who administer the regulations.

2. Solutions will be sought for two specific issues:

   - designers' liability

   - use of standardized contracts by public sector buyers of construction.

GOAL: TO PROMOTE EXPORT DEVELOPMENT AND IMPORT REPLACEMENT

PROGRAMS

3. The Building Industry Strategy Board will develop qualitative market information on opportunities in domestic, U.S. and global markets, consolidate the data and disseminate the information to the industry.

4. The Board will support the development of two types of organizations which are critical for export development:

   - consortia within the building industry

   - export associations

5. The Board will study the feasibility of a computerized construction information system for the effective generation, dissemination, storage and retrieval of product information.

GOAL: TO IMPROVE PRODUCTIVITY

PROGRAMS

6. The Board will promote effective training, improve management and technical education and foster career development in all sectors of the industry by:

   - identifying gaps in current programs
   - providing resources to appropriate organizations to fill these gaps
   - promoting existing training programs to current and potential participants in the industry

7. The Board will encourage counter-cyclical planning to offset peaks and valleys in building activity. This will be accomplished by determining the building plans of both the public and private sectors and publishing regular reports on building intentions.

8. The Board will support the development of an association of buyers of construction to make their influence felt throughout the industry.

GOAL: TO INCREASE INDUSTRY AWARENESS AND CO-OPERATION

PROGRAMS

9. The Board will determine the information needs of each major sector in the building industry and develop a marketing communications strategy.

10. The Board will develop and implement a major campaign to increase industry awareness and co-operation and to promote information exchange on new developments and technologies, public policy developments and overall trends. The campaign could include participation in trade shows, conferences and special events; an awards program to recognize outstanding achievements; a speakers bureau and/or workshops.

11. The Board will promote success stories within the industry to encourage technology transfer, productivity improvements and export and import replacements. These success stories will provide important "how-to" information to the industry.

12. The Board will make existing government programs and resources more effective by:

    - identifying those with potential benefit to the industry and developing a market strategy to ensure maximum take-up

    - relaying industry needs to government to ensure programs and services meet those needs

13. The Board will establish an information clearing house to assemble and disseminate pertinent information from all major sectors in the industry.

GOAL: TO ESTABLISH A WORLD-CLASS BUILDING CENTRE

14. The Board will promote the establishment of a world-class building centre for Ontario. A building centre would become a permanent domestic and foreign marketing vehicle for the industry and would provide the physical focus for a wide range of potential services and functions including: permanent product displays; a sophisticated data base system to house world-wide building specifications, building codes, sourcing and pricing information; an information clearing house; training facilities; research, development and testing facilities; and offices of associations, unions, financial institutions, governments and any other group that deals with the building community.

3. BENEFITS OF THE PLAN

Successful implementation of the plan will benefit both the building industry and Ontario as a whole. Some of these benefits will be immediate and direct; others will become apparent over the longer term. The end results, however, will be the same: more work for the industry with increased employment opportunities; improved productivity with a better ability to compete in domestic and foreign markets; more effective utilization of resources available to the industry and significant financial benefits for all levels of government.

INCREASED EMPLOYMENT

The possibilities for job creation in the industry can be readily demonstrated in the areas of export development and import replacement where:

- a modest 10% increase in the export of building products would create 7,700 jobs in the province
- an equivalent reduction in building product imports would add another 8,000 jobs

IMPROVED PRODUCTIVITY

Improved productivity that will ensue from resolving key constraints to the building process will have widespread effects. For instance:

- a 1% improvement in the industry's productivity is worth approximately $100 million to the provincial economy
- skills of the industry's workforce will be enhanced
- a smoother and more consistent work flow for the industry will be established through improved technical and management training
- construction delays will be minimized.

EXISTING RESOURCES WILL BE MADE MORE EFFECTIVE

An immediate benefit of the plan will be more effective utilization of both government and private resources available to assist the building industry. The benefits that will be realized from increased co-operation both within the industry and between industry and government are:

- more effective targetting of government programs
- increased take-up of government programs by the industry
- fewer overlaps or duplication of services in government and within the industry
- easier access to better industry information
- increased effectiveness of education and training programs

Ultimately, these benefits will mean a greater return on both public and private investment in programs and services designed to assist the industry.

FINANCIAL BENEFITS FOR GOVERNMENT

In addition to increasing the cost effectiveness of existing programs, the plan will also, over the longer term, reduce government expenditures and raise revenues.

- Consolidating building regulations and improving their administration could result in a 20% savings in public sector costs - an estimated $40 million annual combined savings for the three levels of government.
- Elevated industry performance levels mean additional tax revenues. Nearly six cents out of every dollar of building construction expenditure go to the Ontario treasury. For $10.5 billion in building construction activity in 1984, some $603 million was generated in direct provincial revenues. Adding indirect revenues, this figure would reach $1 billion. The federal government's treasury also benefits, deriving eleven and a half cents out of every construction dollar spent in Ontario. Aside from direct revenues, building construction creates indirect financial benefits for the province through lowering provincial grants as local assessment is improved and decreasing unemployment insurance and other social spending as jobs are created.

- In the long term, the plan will help reduce the costs of public sector construction purchases. Higher productivity levels will reduce the costs of construction resulting in lower prices for the end-purchaser. Because the public sector is a major buyer of construction, it could realize a reduction in its expenditures on buildings.

BENEFITS WILL BE WIDESPREAD

The links between various sectors in the industry mean that benefits experienced in one area will potentially be felt industry-wide.

In addition, the geographic distribution of the industry means that the plan will impact on all areas of the province. Consider the profile of the building industry across Ontario:

- in northern Ontario 20% of the employed labour force work on construction or in building-related industries
- 12% of Ontario's employed construction labour force is in southwestern Ontario along with another 31,000 jobs in manufacturing industries that produce building-related products and materials
- 20% of central Ontario's employed labour force works on building construction or related manufacturing and services, while some 95,000 jobs involve on-site building
- 14% of Ontario's employed construction labour is within eastern Ontario
- about 25% of Ontario's employed construction labour is found in greater Metro Toronto, together with the largest concentration of the industry's key service sectors and major related manufacturing activities

4. THE BUILDING INDUSTRY STRATEGY BOARD

The Building Industry Strategy Board represents all sectors of the building industry, labour and related government organizations. The chairman of the Board is a leading developer and members are drawn from various segments of the industry, including:

- manufacturers
- labour
- sub-trade contractors
- developers
- professionals, including architects and engineers
- housebuilders and renovators
- building owners
- industry educators
- related government ministries
- municipalities
- financial organizations

MEMBERSHIP

Board membership for 1986 includes:

CHAIRMAN

* Harold G. Shipp
Chairman & Chief Executive Officer
Shipp Corporation
- Trustee, Urban Land Institute
- Past President, Canadian Home Builders' Association
- Past President, Toronto Home Builders' Association
- Member, Canadian Home Builders' Hall of Fame

VICE-CHAIRMEN

* Gardner Church
Assistant Deputy Minister
Corporate Resources & Building Industry Development

* George Cowl
President
Watts and Henderson Ltd.
Rexway Sheet Metal Ltd.

* Joseph Duffy
Business Manager
Provincial Building & Construction Trades Council
- Director, Workers' Compensation Board

* Newman Wallis
Dean - Liberal Studies
Seneca College of Applied Arts & Technology

MEMBERS

David Armour
President
Electrical & Electronic Manufacturers' Association of Canada

* Frank Bisson
Vice-President
Eastern Construction Ltd.
- Immediate Past President, C.O.C.A.

Ted Bryk
President
Finecrafted Homes
- Past President, Toronto Home Builders' Association

Mayor Marjorie Carroll
City of Waterloo

MEMBERS (Cont'd)

Dr. Paul Fazio
- Director, Centre for Building Science, Concordia University
- Director, Construction Management Institute
- Member, Construction Industry Development Council

* Chris Fillingham
Architect
Dunlop Farrow Aitken Cansfield (Partner)
- Member, Steering Committee on Regulatory Reform

Donald Given
Malone Given Parsons Ltd.
Planning Consultants

Keith Glegg
Vice-President
National Research Council
- Member, Construction Industry Development Council

Les Horswill
Assistant Deputy Minister
Ministry of Skills Development

Joseph Kennedy
Business Manager
International Union of Operating Engineers

F. Peter Langer Jr.
Vice-President
Markborough Properties Ltd.
- Developer/Builder (Residential & Commercial)
- International Scope

* George MacDonnell
President
Ontario International Corporation

Robert McClellan
Vice-President
Marsh & McLennan Ltd.
- Board of Directors, Canadian Construction Association

MEMBERS (Cont'd)

* Miles McMenemy
Senior Vice-President
Corporate Affairs & Secretary
Cadillac Fairview Corporation

James A. McPherson
Chief Executive Officer
Canadian Industrial Innovation Centre

Bill O'Neil
Director - Staff Relations
Ontario Hydro

R.W. Riggs
Assistant Deputy Minister
Real Estate
Ministry of Housing

Derry Robertson
Architect
Vice-President
Crang & Boake Inc.

Stephen Rosenburgh
President
Morewood Industries Ltd.

* John Sandusky
President
Sandbury Homes
- Past President, Canadian Home Builders' Association
- Past President, Toronto Home Builders' Association

M.R. (Mitch) Speigel
President
Acme Building & Construction Ltd.
Sudbury & Don Mills, Ontario

Eddie Thornton
Business Manager
Labourers' International Union of North America
- Training and Rehabilitation Centre

MEMBERS (Cont'd)

John Timusk
Centre of Building Sciences
University of Toronto

* Yaman Uzumeri
Commissioner of Buildings
City of North York

Neil Wood
President
Markborough Properties Ltd.

* Gary Woolgar
President
Butler Manufacturing (Canada)

* Denotes Executive Committee Member

SUB-COMMITTEES

To ensure all segments of the industry from all regions in the province are represented on the Board, two types of sub-committee will be established.

The first will be start-up committees established to oversee specific programs and to make recommendations to the Minister through the Executive Committee; the second will be regional advisory committees to ensure there is province-wide input into the plan and to help communicate the plan to the industry in their region.

- Steering Committees

  Each steering committee will have a Board member as chairman; others with relevant experience or interest in a particular program area will be selected from the industry at large. Particular emphasis will be placed on appointing people from various geographic areas of the province and from various sectors of the industry.

- Regional Advisory Committees

  Regional advisory committees will be established in eight regions of the province to provide the Board with information on issues and priorities in these areas. Committees will have representatives from all sectors in the industry and will help communicate program objectives and results to industry members in their areas.

APPENDIX A

INDUSTRY CONSULTATION PROGRAM

- o Participants in June 10th, 1985 Workshop
- o Consultations February - August, 1985
- o Reports/Studies Consulted

WORKSHOP

JUNE 10, 1985

ATTENDEES

ASSOCIATION NAME	ATTENDEE
American Institute of Constructors (Ontario)	Fred Perkins
Amey Roadstone Corporation Ltd. (Bristol, England)	M.A. Clarke
Architect	G. Heck
Association of Land Economists	Conroy Dowson Rod Thurgood
Association of Professional Engineers of Ontario	Peter Cook Christopher Hart
Association of Registered Interior Designers of Ontario	Alan Fairbrass Alison Hymas Phillip Moody JoAnne Radford Howard Taylor Ken Thompson David Winters Tony Yates
Bond and Associates Limited	Ronald Bond Donald Lytle
Borough of East York	Donald Baxter
Brethour Research Associates	Wayne King Leigh Taylor
Buildcore Inc.	Steve Klechek * Paul Roman *
Campbell Cox Limited	Donald Cation
Canada Mortgage & Housing Corp.	Brian Gray Gordon Walt
Canada Permanent Trust	Douglas Lamb
Canadian Automatic Sprinkler Association	William Clark Larry Fronzack John Galt

Canadian Bankers Association	Mary Beegan William Stewart
Canadian Construction Association	Donald Giffen Barry Mees Larry Monette Robert Nuth
Canadian Export Association	Paul Opler
Canadian Fire Safety Association	Jonathon Rubes
Canadian Gas Association	Herb Wank
Canadian General Standards Board	David Bova
Canadian Home Builders Association	Ken Kyle
Canadian Institute of Plumbing and Heating	Phillip Nance
Canadian Institute of Steel Construction	Don Turner Wayne Wallace
Canadian Manufactured Housing Institute	Doug Barker
Canadian Portland Cement Assoc.	Michael Shirlaw
Canadian Roofing Contractors Association	Bob Parsons
Canadian Sheet and Steel Building Institute	William Evoy Steve Fox Rowland Jones Derek Tarlton
Canadian Standards Association	George Lawrence
Canadian Testing Association	G.A. Bately Jack Kilgour Mace Mair
Canadian Window and Door Manufacturers Association	Ray Caravaggio
Canadian Wood Council	Don Griffith Sarah Maman
Carpenters Bargaining Conference Ontario Provincial Council of Carpenters	Robert Reid

City of Etobicoke	Eros Fiacconi
City of Hamilton	Ed Kowalski
City of North York	Patrick Marshall
City of Toronto Department of Buildings and Inspections	Richard Bishop Bob Bonner Dave Breau John Jones Steve Matusek Noel McDonnell Bill Meldazy George Vrachas
City of York	P.D. Hansen
Comshare	Chris Malicki *
Conestoga College	Arden Mertz
Confederation College	James Dawe
Construction Employees Co-ordinating Council	Michael Eayrs
Construction Management Institute	Michael Copas David Judge
Construction Owners Council of Ontario	Peter Allen
Construction Safety Association of Ontario	Leonard Sylvester Keith Berriman
Corrugated Steel Pipe Institute	Jim Tout
Consumers Association of Canada (Ontario)	Zelma Rieve
Council of Ontario Contractors Associations	Frank Bisson J.C. Bulmer Barry Eon William Goan John Layfield John Spratt
Dean-Chandler Waterproofing Ltd.	Matt Tonjenovic
Defense Construction Canada	Leon Wasser
Donnelly-Ostapec Limited	William Donnelly
Etobicoke Fire Department	Martin Whelan

Electrical Contractors Association of Ontario	Hugh Carroll Norm Purdy
Enerplan Consultants	Keith Bryant
Export Development Corporation	Michel Latendresse David Little
Fire Prevention Officers Association	Bill MacFarlane Bill Mitchell
George Brown College Architectural Division	Brian Beetles
George Wimpey Canada Ltd.	Brian Pearse John Vickery
Georgian Group	Tony Maida
Government of Canada Department of Regional Industrial Expansion	Guy Bird David Mott
Government of Canada Department of Regional Industrial Expansion - Business Opportunity Sourcing System	Owen Adams * Donald Ranger *
Hamilton-Brantford Building Trades Council	Tom Casey
Heathcliffe Development	Tom Stricker
Heating, Plumbing and Air Conditioning	R.H. Shuker
Heating Refrigerating and Air Conditioning Institute of Canada	Sam Cryer
Heritage and Renovation	J. Bond
Honeywell	Keith Baker *
Humber College	John Metcalfe
Institute of Housing Management	Don Reichheld
International Association of Bridge Structural Form Ironworkers	Norman Wilson
International Brotherhood of Electrical Workers	Don Lounds

International Brotherhood of Electrical Workers - Local 105	Patrick Dillon
International Brotherhood of Electrical Workers - Local 120	Bill Arnezeder
International Union of Operating Engineers - Local 793	William Conlin Peter Dimitruck Joseph Kennedy Richard Kennedy Jack Slaughter Joseph Mihalich Ron Walsh
Iron Workers Trade Improvement Plan	Kenneth Childs
J.L. Dobbie & Associates	J.L. Dobbie
Labour Relations Bureau of Ontario	Jim Thomson
Labourers International Union of North America Local 183	Quinto Ceolin Tony Dionisio Michael O'Brien Michael Reilly John Stefanini Eddie Thornton
Labourers International Union of North America Local 506	Robert Maskey
Life Insurance Institute of Canada	Don MacLennan
Mechanical Contractors Association	W.H. Wilson
Mechanical Contractors Association of Toronto	Derwent Lewis Jack McCarron Frank Michelucci Ron Rescorl
Ministry of Consumer and Commercial Relations	Grant Mills
Ministry of Industry & Trade	Norman Pettet John Oakley Robert Bathgate * Ron Whyte *
Ministry of Labour	Ben Chan Bonnie Demb Dr. D. Leach Jerry Meadows John Weiler

Ministry of Municipal Affairs and Housing	Scott Cline Sylvia Davis H.S. Grewal Elizabeth Lea Crom Sparling Gabriel Tropea * Ms. Pat Vanini
Ministry of Natural Resources	John Slot
Ministry of Skills Development	L. Kerridge Dominic Piccolo
Ministry of the Solicitor General	Roy Philippe
Municipal By-Law Enforcement Officers Association	Roy Bridge John Johnston
National Research Council	Dr. L. Gold R.A. Hewitt J.R. Ratz
Niagara Consulting Services Ltd.	Harry Sharp Tan Wiewen
Nova North Consulting Group	Joseph Powadink
Ontario Allied Construction Trades Council	John Marcheldon
Ontario Association of Architects	Michael Ross
Ontario Association of Property Standards Officers	Donald Tedford
Ontario Building Officials Association	Brian Allick James Brown George Fleming Peter Finn William Henderson Ed Link Tom Powdrill
Ontario Erectors Association	William Jemison
Ontario General Contractors Assocation	R.G. Perkins
Ontario Home Builders Association	Tom Cochren Ron Desjardins Barbara Fillingham John Sale

Ontario Industrial Development Council	James Appleyard
Ontario Industrial Roofing Contractors Association	Bill Hodgson George Lampert
Ontario International Corporation	Colin MacFarlane
Ontario Lumber Manufacturers Association	A.J. Harridge
Ontario Masonry Contractors Assoc.	James Riach
Ontario Mortgage Brokers Assoc.	Rena Malkah Michael Mayer
Ontario Mortgage Corporation	Mrs. C. Peterson
Ontario Plumbing Inspectors Assoc.	Ray Brown Frank Penfold
Ontario Sewer and Watermain Assoc.	Sandy Cochran
Operating Engineers Training Institute of Ontario	Ronald Allain * Kingsley Cole *
Outsulation Systems Ltd.	Ed Barnard Paul Wesley
Painters Union Local 1824	George McMeneny
Principal Heating Company	N.E. Bird
Provincial Building and Construction Trades Council of Ontario	Bjarne Anderson Ron Carlton Ken Evans J. Dave Johnson Allan McIssac Charlie Paul Jack Porter John Robbins Ken Weller
Reinforcing Steel Institute of Ontario	George Knapton
Resnick, Layton, Wise and Partners	Fred Shan
St. Lawrence College	David Grighmire Kent Hamilton
Sault Ste. Marie Construction Association	Rick Thomas

Scarborough Fire Department	Brian Wallace
Seneca College	Harold Atkins
Shore, Tilbe, Henschel, Irwin, Peters	G.G. Monkman
Sinclair Supply Company Ltd.	David Siversky
Sir Sandford Fleming College	S. Heilingbranner Ted Lo
Sireman Associates and Consulting Engineers	Omar Chaudrey
Skwyood T.B.C. Extrusion Inc.	John Nassar
Society of Plastics Industry of Canada	Basil Darrah Warren Hall
Standards Council of Canada	Bob Smith
Thermal Steel Building Systems	Bob Hajek
Toronto Real Estate Board	Nick Munaretto
Underwriters Laboratories of Canada	John Roberts
University of Toronto	Johm Timusk
Urban Development Institute	8 representatives
Urban Planner	Lynn Poole
Waferboard Association	Tom Plouffe Benoit St. Laurent
Waterloo Construction Council	F.C. Ansley Dr. David Cape R.W. Cockfield M. Colin Morris
Waterloo-Wellington Mechanical Contractors Association	Ken Irvine
William Elliott Ltd.	William Elliott
W.R. McKenzie Consultants	W.R. McKenzie

* indicates Exhibitors at the Workshop

INDIVIDUALS CONSULTED RE: BUILDING INDUSTRY STRATEGY FOR ONTARIO

Colin Parson, Past President,
Ontario Home Builders Assoc.
Ernest Tonge, President,
Sulimex Ltd.
Frank Bisson, Chairman,
Council of Ontario Contractors Associations
Barry Fraser, President,
Provincial Building and Construction Trades Council of Ontario
Peter Langer Sr., Chairman,
Markborough Properties
Hugh Heron, President,
Heron Homes
John Sandusky, Immediate Past President,
Canadian Home Builders Association
Lloyd Rockett, Vice-President of Marketing,
Canadian Gypsum
Warren Wolfenden, First Vice-President,
Ontario Home Builders Association
Keith Morley, President,
Costain Ltd.

Michael Copas,
Project Communications Inc.
Charles Edward Oliver, President,
C.E. Oliver and Associates Limited (Professional Engineers)
Mel A. Shear & Associates,
(Real Estate Management Consultants)
Ronald J. Allain, Director of Training,
Operating Engineers Training Institute of Ontario (OETIO)
John R. Oakley, International Marketing Consultant,
Ministry of Industry & Trade, Government of Ontario Canada
J. Barry Fraser, President,
Provincial Building and Construction Trades Council of Ontario
John Carruthers, General Executive Board Member 9th District,
United Brotherhood of Carpenters and Joiners of America
J.P. Lanthier, General Manager, Apprenticeship Skills Development Division, Ministry of Colleges and Universities, Government of Ontario Canada
Roy S. Curtis, Vice President,
Hatch Associates Ltd. (Consulting Engineers)
Donald Lounds, International Representative,
International Brotherhood Electrical Workers (IBEW)
A. (Tony) Vedlin, Assistant District Manager,
PCL Constructors Eastern Inc. (PCL)
H.N. Edamura, Vice-President, Project Management (Principal), Marshall Macklin Monaghan (Consulting Engineers Surveyors Planners)

K.A. Littzen, President & Chief Executive Officer,
Ontario International Corporation, Government of Ontario
Canada
William J. Nevins, Chief Economist,
Canadian Construction Association

Peter Klopchic, International Marketing Consultant,
Ministry of Industry and Trade, Government of Ontario
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